

Abstract

Method for alignment and for exposure of a semiconductor wafer

5 Exposure positions of exposure fields of semiconductor wafers
are subsequently corrected individually in order to compensate
for processes affecting the locational position of alignment
marks and/or oblique measurement structures. Measurement
structures are formed preferably in the frame region of
10 product wafers comprising electrical circuits to be formed and
their locational positions before and after the effect of the
process that has an effect are compared individually for
purpose of determining the positional displacement for each
relevant exposure field. From this there is determined either
15 directly a "shot"-fine correction value for the individual
exposure or at least one nonlinear function for the correction
in dependence on the position of the measurement structures on
the wafer. The corrections are applied to the exposure fields
after alignment to the alignment marks overformed by the
20 process in dependence on their position on the wafer.

Figure 3